

REMARKS

This application has been reviewed in light of the Office Action dated December 2, 2005. Claims 1-7, 10-17 and 26-28 are presented for examination. Claims 1, 11, 12, 17 and 26, the independent claims, and Claim 7 have been amended to define still more clearly more clearly what Applicants regard as their invention. Claims 27 and 28 have been added to assure Applicants of a full measure of protection. Favorable reconsideration is requested.

In the outstanding Office Action, Claims 1-7, 10-17 and 26 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,504,949 (Matsukubo et al.).

Independent Claim 1 is directed to an image processing apparatus that comprises generation means for generating a bitmap image on the basis of inputted object data, and hold means for holding attribute information representing attributes of the inputted object data. The hold means hold the attribute information in units of pixels of the bitmap image generated by the generation means, and the attribute information is formed by allocating plural bits to each pixel of the bitmap image, each of the bits indicating a different type of attribute respectively. The apparatus also comprises conversion means for converting the bitmap image into data capable of being processed by an image output unit, and switch means for switching the contents of processing for each pixel based on the bits of the attribute information corresponding to that pixel. According to Claim 1, the number of bits of the attribute information used by the switch means is different in accordance with characteristics of image processing to be performed.

Among other notable features of the apparatus of Claim 1 is that the number of bits of the attribute information used by the switch means is different in accordance with

characteristics of an image processing to be performed. Support for this feature is found at page 35, line 12, through page 36, line 11.

In an apparatus according to Claim 1, this feature has the advantage that fewer bits of the attribute information are used if importance is attached to cost, for example, while on the other hand more bits are used if importance is attached to image quality. That is, when the image data is outputted by means of a relatively inexpensive printer, or otherwise is to be processed very inexpensively even at the cost of some loss of image quality, only a relatively small number of bits of the attribute information are used. For higher-quality processing, where cost is given less weight, a larger number of the bits are used, thus permitting a larger amount of attribute information to be taken into account (in that the larger number of bits can encode a larger amount of information than can be included in the smaller number). This kind of flexibility cannot be achieved using the *Matsukubo* system.

Matsukubo relates to a system in which, as illustrated in Figs. 29 and 30, there are generated four types of one-bit flags (vector flag, character flag, edge flag and edge boundary flag), one or another of which is assigned to each pixel of a bitmap image. The image attribute of each pixel may be represented by a combination of the plural bits of the attribute information (a combination of the four one-bit flags). For example, in the case of a circle graphic as shown in Figs. 28 (see region A) and 29, the image attribution is represented by the combination of vector flag = 1 and character flag = 0 for all pixels of the graphic, while the edge flag = 1 for the pixels on the edge of the graphic and = 0 for all other pixels, and the edge boundary flag = 1 for those pixels that are adjacent to any edge pixel but are not edge pixels themselves.

For a character (see region B in Fig. 28), on the other hand, the vector flag = 1 and the character flag = 1 for all pixels in the character. with, again, edge vector = 1 only for those pixels that are on the boundary of the character, and edge boundary flag = 1 only for those pixels that are adjacent to an edge pixel but are not themselves edge pixels.

Applicants submit that nothing in *Matsukubo* would teach or suggest changing the number of bits to be used for the attribute information in accordance with characteristics of processing to be performed. Rather, in *Matsukubo*, the same four one-bit vectors are used for all pixels, and it is only the various combinations of specific values that are significant.

For at least that reason, it is believed clear that claim 1 is allowable over *Matsukubo*.

Independent Claim 12 is directed to an image processing system recited as having each of the features recited in Claim 1. Claim 26 is directed to an image processing apparatus similar to that of Claim 1, but recited in non-means-plus-function format. Claims 11 and 17 are computer memory medium and method claims, respectively, corresponding to apparatus Claim 1. All these claims are believed to be patentable for at least the same reasons as discussed above in connection with Claim 1.

A review of the other art of record has failed to reveal anything which, in Applicants' opinion, would remedy the deficiencies of the art discussed above, as a reference against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of

the invention, however, the individual consideration or reconsideration, as the case may be, of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and allowance of the present application.

Applicants' undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,



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